

Work Order ID 159631

Thursday, April 13, 2017 2:38:29 PM

159631

Page 1

Item ID: D4941-4L08 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Floor Protector, Aft RH, (Clear)
 Start Date: 4/27/2017 Start Qty: 2.00 ***2*** Cust Item ID:
 Required Date: 5/4/2017 Req'd Qty: 2.00 ***2*** Customer:
 Reference: SCHEDULED

Approvals: Process Plan: DAS 21 9-89 Date: APR 18 2017 Tooling: _____ Date: _____ Run Start ***NR1***
 QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
--------------------------------	--------------------------	----------------------	---------	--------	--------------	---------------	---------------	------------------	----------------

Draw Nbr	Revision Nbr
D4941	D

100		0.00							DAS 07 9-89
100	HAND FINISHING THERMOFORMING								
Thermoform	Memo	0.50							
Thermoforming Machine	Cut Blanks								12/04/19

105		0.00							DAS 07 9-89
105	Dry Material								
HandThermo	Memo	0.00							
Hand Finishing Thermoforming	Dry Sheet as per QSI022 POLYCARBONATE								12/04/19

Temp: 245 C
 Time IN: 5:00 PM
 Time OUT: 6:00 AM
 APR 19 2017
 Per: W

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐																																																													
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval																																																										
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								Lead hand / Supervisor Approval Verification																																																									
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Root Cause		FAULT CATEGORY																																																															
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐	Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐	Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐	Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐	Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐	Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐	Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐	Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐	LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐	Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐	Past Expiry Date ☐	Manufacturing Process ☐	OTHER :			
Misidentified ☐	Past Due ☐																																																																

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
110 *110* Thermoform Thermoforming Machine	THERMOFORMING MACHINE Memo Thermoform as per Dwg. D4941 and Folio FTA 161 Dwg. Rev. <u>D</u> Folio Rev. <u>S</u>	0.00 2.17				<u>2</u>			DAS 07 9-89 17/07/19
130 *130* Thermoform Thermoforming Machine	HAND FINISHING THERMOFORMING Memo Trim to Finished Dimensions	0.00 0.61				<u>2</u>			DAS 07 9-89 17/04/24
140 *140* QC Quality Control	QC2- Inspect parts off machine FAI/FAIB Memo	0.00 0.02				<u>2</u>			DAS 07 9-89 17/04/26

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Date : _____		Step #: _____		QTY Effective : _____			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
							Completed By 		
							Lead hand / Supervisor Approval Verification 		
QC / QA Coordinator Approval 									

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____					
Misidentified ☐	Past Due ☐						

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QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150	QC5- Inspect part completeness to step on W/O	0.00							
150						<u>2</u>			
QC	Memo	0.04							DAS 38 APR 27 2017
Quality Control									
160	Packaging	0.00							
160						<u>2</u>			
Packaging	Memo	0.00							DAS 6 APR 27 2017
Packaging									
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.20							17/4/27 JJ
Quality Control									

DAS
21
9-89

APR 27 2017

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Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____		
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER : _____			
Misidentified	☐	Past Due	☐				

Picklist Print

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Page 1

Work Order ID: 159631

159631

Parent Item: D4941-4L08

D4941-4L08

Parent Item Name: Floor Protector, Aft RH, (Clear)

Start Date: 4/27/2017

Required Date: 5/4/2017

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev A New Issue 13/12/16 DL
Revised dimensions 14/02/12 DL
14/07/02 DL

IPP Rev. B
IPP Rev C revised Dwg.
IPP Rev. D Revised Dwg. 14/07/25 DL

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
MLEXS.118-90318-08		Purchased	No			100	sf	718.6478	4.875	9.75			DAS 07 9-89
MI FXS 118-90318-08									**				
Lexan Sheet (Clear)													

Location

therm

m126994

Loc Qty

718.64775

718.64775

Loc Code

9.75 *sg* *pk*

17/04/17

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Misidentified ☐	Past Due ☐																																																																

DART AEROSPACE LTD		Work Order: 159631
Description: Floor Protector, RH Aft		Part Number: D4941-4L02/L08
Inspection Dwg: D4941	Rev: D	Page 1 of 1

INSPECTION SHEET THERMOFORMING SECTION

Description	Accept	Reject	Method of Inspection	Comments
Inside Radii less than "				
Shape Definition				
Texture Retention				
Material imperfections such as bumps, cracks, voids, scratching				

Measured by: DAS 07 9-89	Date: 17/04/19
---------------------------------	-----------------------

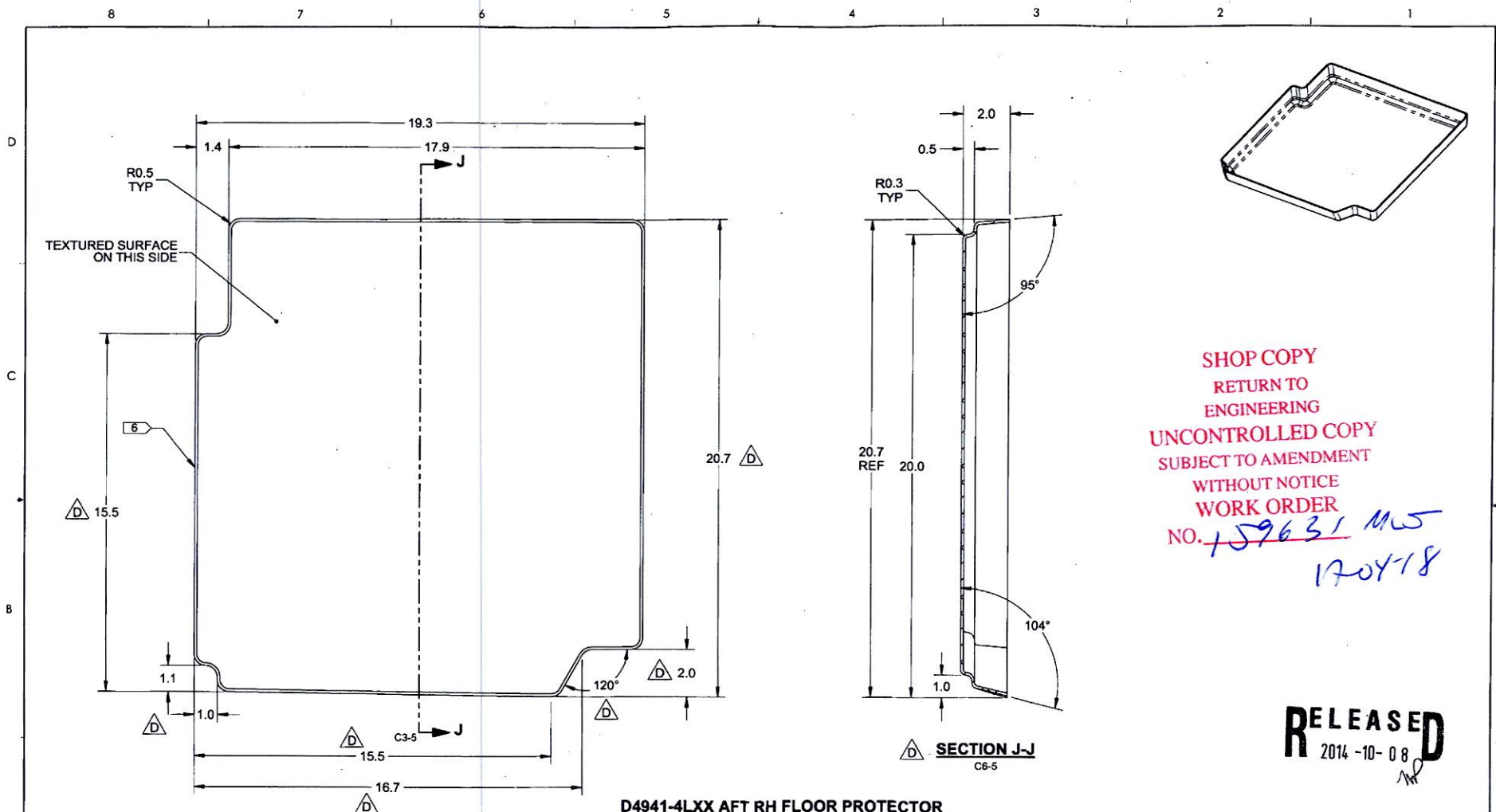
TRIMMING SECTION

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
19.3	+/-0.100	19.3"	✓			
17.9	+/-0.100	17.9"	✓			
20.7	+/-0.100	20.6"	✓			
2.0	+/-0.100	2.0"	✓			
16.7	+/-0.100	16.8"	✓			
15.5	+/-0.100	15.5"	✓			
1.1	+/-0.100	1.1"	✓			
2.0	+/-0.100	1.99"	✓			
0.070	Min					

Measured by: DAS 07 9-89	Checked by: DAS 38 9-89	QC Inspector:
Date: 17/04/2016	Date: APR 27 2017	Date:

Engineering Approval: (If necessary)	Date:
--	--------------

Rev	Date	Change	Revised by	Approved
A	14.07.14	New Issue	KJ	
B	15.04.27	Dimensions updated per Dwg Rev D	KJ	
C	16.06.24	Dwg Rev updated	KJ	



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 159631 MWS
170418

RELEASED
2014-10-08

NOTES:

- 1) MATERIAL: SEE TABLE
- 2) FINISH: N/A
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 6.4
- 7) WEIGHT: 1.9 lbs
- 8) THERMOFORM PER QSI 022 USING MOLD DT9993
- 9) TRIM PER MOLD LEAVING FINISHED EDGES
- 10) MINIMUM THICKNESS AFTER FORMING IS 0.070"

D4941-4LXX AFT RH FLOOR PROTECTOR

PART NUMBER	DESCRIPTION
D4941-4L02	F6006 SUEDE/POLISHED 701 BLACK LEXAN SHEET 0.125 THICK (REF DART SPEC MLEXS. 125-F6006-02)
D4941-4L08	90318 PROTECT-A-GLAZE 112 CLEAR LEXAN SHEET 0.118 THICK (REF DART SPEC MLEXS. 118-90318-08)

APPROVED

DESIGN	AK
DRAWN	AK
CHECKED	VS
MFG. APPR.	DL
APPROVED	HS
DE APPR.	DS
DATE	14.07.25

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D4941	REV. D SHEET 5 OF 5
TITLE CABIN FLOOR PROTECTORS	SCALE NTS
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